

# The Monthly BUSINESS REVIEW

Covering business and industrial conditions in the Fourth Federal Reserve District

FEDERAL RESERVE BANK of CLEVELAND

D.C.Wills, Chairman of the Board

(COMPILED AUGUST 20, 1921)

VOL. 3

CLEVELAND, OHIO, SEPTEMBER 1, 1921

No. 9

**S**OME lines of industry have shown definite signs of improvement during the past few weeks. Others are still lagging, but the undertone of optimism, scarcely audible in the quite recent past, can now be heard more plainly. A part of the improvement is directly traceable to renewed fall activity, results of which are already in evidence. However, there are other responsible factors more important, and more lasting than "seasonal spurts."

Various lines of business that have been showing improvement, are working on a conservative basis, and their revival, while not spectacular, has been reasonably sure. They have been sticking to the beaten path. The textile industry, one of the first to feel the effects of depression, slumped for a time and then started to climb. Today it is pointed out as an indication that conditions are working back to normal. The automobile business, although not satisfactory, has made considerable progress; iron and steel has started in the right direction, and other lines are following. Progress has been shown not only through "seasonal spurts" but through mid-season depression and the results have been lasting.

Back of these improvements are fundamental causes and their effects have been far reaching. During a period of erratic inactivity business has been putting its house in order. Instead of building more "cyclone cellars" industrial leaders have been improving the time by stopping leaks, adjusting working methods and increasing efficiency. The results are clearly evident and today business is sure of its footing, a situation not in existence when prices were soaring, man and management inefficiency was predominant, and orders were booked far in advance of production.

At the present time there are dealers and manufacturers who have cut the prices of their goods and are selling at a very low margin in an effort to stimulate business. Unfortunately, however, there are some people who have failed to see the light and are holding hard and fast to their peak price policy. Their high prices have placed a stumbling block in the path of business, and they are not only jeopardizing their present and future chances for prosperity, but they are playing unfair with the man who has

made substantial price cuts as his share in the readjustment process.

Production, distribution, and the ultimate consumption of goods are the dominating factors in the business cycle. Each one has been keeping a watchful eye on the other fellow during the period of readjustment, for progress for one should eventually mean progress for all. Increased production and increased labor go hand in hand. Additional buying power on the part of the ultimate consumer is the result and both working together bring a greater distribution of goods. Naturally, production was first in line and it has been getting its stride. The cost of raw materials has dropped and this reduction has quite generally been passed along.

Co-ordination is an essential element in readjustment and without it improvements cannot be lasting. Production can move along for a time on its own hook, apparently not feeling the need of outside help, but it will not go far. When wages are high the consumer is not particularly interested in prices connected with the distributing part of the program, but when wage reductions come, it is an entirely different matter. The producer found he could not continue alone and the consumer has arrived at the place where expenditures must be watched more carefully. Apparently, a "tie-up" has occurred between the distribution of goods and the receiving end.

Such a "tie-up" can only be temporary, for the buyer of goods, as a rule, has changed from his one time extravagant attitude and is making his purchases with greater care. If he does not find what he wants at one place and at a reasonable price, he will keep on looking until he has found it or will go without. He has been educated to the fact that replacement values are not alone responsible for the high prices he has to pay. Such an attitude will eventually mean that prices which are still out of line will in time have to get back where they belong. And this holds true of great and small alike.

There are many who are carrying their share of the burden and have made substantial reductions, however, this burden is becoming increasingly irksome by the stand the "hold out" has taken. This

**ON PAGE SIX WILL BE FOUND A SPECIAL REPORT ON THE RUBBER INDUSTRY.**

stand is more than a boomerang, for, while it will eventually return to the starting point with few beneficial effects, it is in the meantime causing a strong undercurrent of doubt in the mind of the buyer as to price stability. The buying public is not

asleep; they can see price inconsistencies between goods which they must have and goods which have to be sold, and they will not forget the business house where distribution prices are in proportion to those of production and wages.

### ***Volume of Loans Continue Slight Decline; Decrease in July Deposits; Improvement Noticeable in Acceptance Market***

The demand for accommodations from member banks has been easing off during the past month. There has been a slight but gradual decline in the volume of loans to city banks, but the country districts up to this time have shown little change. Some bankers report a considerable demand from country correspondents, an indication that few returns from the sale of this year's crops have come in. The majority of last year's loans to farmers are still being carried.

Deposits for July continue to show a slight gain over the same month last year. Combined reports of fourteen large banks and trust companies in the Fourth District show an increase in time deposits of .7 per cent for July, 1921, over July, 1920. This is a decline from June when the same number of banks showed an increase of 2.1 per cent over June, 1920. There was an increase of 1.4 per cent in June, 1921, over May, 1921, but July deposits compared with same for June dropped off 2.4 per cent. Of the larger cities, Youngstown and Akron appear to have been affected more than others. Deposits are holding up well in Pittsburgh.

Twenty-two accepting banks report acceptances executed for customers during the month of July at \$3,124,814 and acceptances paid during the same period \$3,913,792. The predominating classifications are tractors for domestic shipment, oil and sugar.

A slight improvement was noticeable in the general conditions of the acceptance market over the previous month. Rates remained practically the same with only momentary variations caused by supply and demand.

The erratic character of the foreign exchange market and the decided decline in some currency affected the supply of export bills. Few appeared in the market. However, the usual supply of import

bills was available with a steady increase in domestic shipment bills and paper drawn against warehouse receipts. The annual supply of bills drawn against grain appeared in the market for the first time this year. This improved the variety of names and a few new names of banks, not formerly accepting, were offered. More bills drawn against coal shipments and warehouse receipts of coal have been drawn in this District than ever before. At present a number of syndicates have been arranged to originate bills of this character.

The demand for prime bills has exceeded the supply. Country banks and corporations have purchased steadily, but in smaller amounts, and have shown decided preference to the shorter maturity. In the agricultural section of the southern district, the demand for short time securities has appeared for the first time in some months past. There is a dropping off in the demand by banks in the strictly manufacturing centers. Indications show money is now being used in opening up business and preparing for a renewal of activity.

Rates on bankers' acceptances are as follows:

Spot Delivery	
90 days .....	5¼ to 5
60 days .....	5⅛ to 5
30 days .....	5⅛ to 5

For Delivery in 30 Days

Eligible member banks .....	5¼
Eligible non-member banks .....	5¾
Non-eligible bills .....	5¾

Commercial paper has remained at 6 to 5½ per cent. Endorsed bills still remain at 6 per cent and names of choice character up to 6¼ per cent. There has been little demand and the supply is light.

### ***Better Feeling in Iron and Steel Industry Continues; Present Building Requirements Small; Pig Iron Inquiries More Favorable; July Production Touches Low Point***

Developments in the iron and steel industry during the past month strongly indicate that the turning point in output and sales has been passed. While the statistics for July show new low marks in the production of pig iron and steel ingots, the encouraging number of inquiries and slightly greater volume of business noted during the first two weeks of August reflect an improvement which may swell the

totals for the present month to amounts exceeding those of July.

The first tangible evidence of improved conditions appeared about the middle of July when reductions brought prices to a level which attracted buyers. With prospective purchasers in the market, producers engaged in active competition, which forced prices still lower. A moderate buying movement

started and it has continued in unabated volume up to the present time. The railroads were among the first consumers of steel to take advantage of the lower prices. In the last week of July the contracts for repairing an aggregate of from 15,000 to 20,000 freight cars were pending. Each week since that time has brought inquiries or orders for repairs on several thousand cars. Track material, consisting of spikes, bolts and tie plates, have been bought in fair-sized quantities by the roads. The car repair work has been a factor in the bar, plate, shape and sheet markets. Automobile makers have continued to show interest in sheets and bars.

In a few instances, unusually low prices have been made on structural shapes. The placing of 7,000 tons by a Mt. Vernon, O., fabricator at from 1.60c to 1.65c is an example of the shading done on this material. Several large inquiries for structural steel are current in the East. Most of the present building operations, however, require only small or moderate-sized tonnages of steel. The prices for finished steel were quoted on August 17th, base Pittsburgh, as follows: Steel bars, 1.75c; shapes, 1.75c; plates 1.75c; No. 28 gage black sheets, 3.00c; No. 10 blue annealed sheets, 2.40c; No. 28 galvanized sheets, 4.00c; and wire nails, 2.75c. The sheet market is active, due to inquiries for galvanized material for box car roofing and also to the placing of considerable tonnages of No. 31 black sheets for export to Japan. Several Ohio and Pennsylvania mills now are rolling on these orders.

A broader pig iron inquiry than has been brought forth in many weeks now is current. The most favorable feature of this development is the increased shipping instructions from consumers. During the week of August 7, approximately 15,000 tons of pig iron was sold in Chicago. About 20,000 tons were sold in Buffalo during the week ending August 13. Pittsburgh manufacturers have bought round

tonnages. Bessemer valley is quoted at \$20; basic valley at \$18 to \$20; No. 2 foundry valley, \$20 to \$20.50, and spot furnace coke at \$2.75 to \$3.25 Connellsville. Foundry coke is quoted at \$3.75 to \$4.25. A halt seems to have been called in the decline of pig iron prices, and the mid-month period finds the quotations being maintained firmly.

The composite market average of 14 iron and steel products compiled by The Iron Trade Review was \$36.03 at the middle of August as compared with \$38.61 at the corresponding date in July, \$41.87 in June, \$43.32 in May, \$43.84 in April, \$45.37 in March, \$48.81 in February, and \$51.98 in January. The highest figure was \$89.69 in October, 1917. The average in August, 1914, was \$22.72; therefore the current figure represents an increase of 58.5 per cent over the pre-war level.

Production of pig iron in July dropped to the lowest point recorded since The Iron Trade Review inaugurated the monthly compilations 15 years ago. The output for July was 864,580 tons. This represents a loss of 199,247 tons when compared with June. The number of furnaces blowing at the end of July was 69, a loss of 4 from the corresponding date a month previous. The statistics of pig iron production for the first half of 1921, just announced by the American Iron and Steel Institute, show an output of 9,530,981 tons. This is slightly more than half of the output for the first half of 1920, which was 18,435,602 tons. The phenomenally low rate of production in the industry also was emphasized by the July statistics of steel ingot production. The output was at the rate of 11,870,000 tons annually which is lower than the figure for any calendar year since 1900.

Lake Superior ore shipments in July amounted to 3,850,000 tons, bringing the season's total up to August 1, to 10,220,000 tons. In July, 1920, the shipments amounted to 9,638,606 tons.

### ***Indications Point To Heavy Lake Shipments of Grain; Coal Shipments Drop; Ore Movement Shows Slight Increase Over June***

Ore is moving a little more freely and grain is taking care of more tonnage, but the increase in the two lines does not make up for the slump in the coal trade which is quite marked. There is not much change in conditions compared with a month ago. Coal shipments for July which were 3,554,686 tons show a loss of 1,103,623 tons compared with June when the fleet loaded 4,658,309 tons of cargo. The August movement will show a cut and while an increase is looked for in September and October, much will depend on how fast the coal is taken forward from the docks at the upper lake ports as storage room is getting pretty scarce. Last year's total can be reached without any trouble as the movement up to date is far ahead of 1920. The fleet up to August 8th loaded 13,699,762 tons of cargo coal. The movement for the same time in 1920 was 7,049,707 tons, 1919, 13,478,879 tons and 1918, 12,281,188 tons.

Shipments for the past few weeks show a loss compared with last season.

Carrying charges on grain for prompt and future loading are higher than they were a month ago, due very largely to the scarcity of coal cargoes, as a number of boats were dropped. The indications are that the late grain movement will be heavy and the Lake Superior trade will take care of more vessel capacity than it has for a number of years. The crop of coarse grain in the Canadian Northwest according to reports received from agents at the head of Lake Superior will be the largest on record and is placed at from 250,000,000 to 300,000,000 bushels. A large part of the grain will, of course, be sent forward by lake. It is figured that the movement from Duluth will be between 50,000,000 and 75,000,000 bushels, which will be a big increase over last year.

Very little ore was sold during the past month and while more orders for pig iron are being booked and there is a little better feeling in the steel trade, an early increase in the ore movement is not looked for as stocks are pretty heavy at the furnace yards and Lake Erie ports. The mines in the Lake Superior district sent forward 4,047,687 tons of ore in July. That was an increase of a little more than 400,000 over June, but a decrease of 5,590,919 tons compared

with July, 1920. Shipments for the season up to August 1st were 10,418,914 tons or 15,660,197 less than for the same time last season, when the movement was 26,079,111 tons. Shipments for August will probably show a gain over July, but unless orders come in faster the movement for the season will not exceed 25,000,000 tons. On August the Lake Erie docks were holding 8,840,824 tons of ore and on the same date in 1920 stocks were 7,917,109 tons.

### ***Manufacturing Spotty; Some Lines Show Increased Activity; Tire Production Gains***

Manufacturing conditions this month are quite irregular, but the majority of reports show considerable improvement over those for July. Some manufacturers are still feeling the general business depression keenly, while others report business as showing a good healthy improvement.

The automobile industry is showing more signs of life and the buying public has greater faith in the stability of prices since the majority of dealers have followed the lead of those who started the movement of price cutting.

Reports from truck manufacturers are mixed. One prominent manufacturer reports that "orders for the month of July showed an increase over the corresponding month last year," the first report of this kind since the business began to slow up. However, another report is to the effect that business in this line is practically stagnant. On account of slow business conditions there are many trucks which are not in use and there can be no great amount of buying until the idle ones are in service. A part of the 75,000 trucks which the United States Government released last year in foreign countries have been bought by speculators and returned to this country for market. This has increased the difficulties of our manufacturers and dealers.

The rubber industry has shown a steady improvement during the past few months and many plants have almost reached capacity production. The industry in general is estimated to be running around 80 per cent of normal. Production for this season may

have reached its peak about August 1st, for since that time a few workmen have been laid off.

Up to this time, farm implement dealers have experienced no pick-up in business resulting from sales of this year's crops.

There has been little change in the hardware manufacturing business since last month. Conditions are reported as even more discouraging with no prospects for immediate improvement.

Tool makers report practically no improvement. Price reductions have failed to stimulate any extensive buying.

The situation in the moulding machine line, foundry supplies, heavy hoisting machinery and allied lines reflects an improved tone. The improvement is slow, but the worst of the slump appears to be past.

Considerable improvement is shown in the paint business. Price cuts have been made and one large manufacturer reports "a splendid volume of business." Salesmen have returned to the road since their vacation and are turning in a gratifying amount of sales. A manufacturer of white lead reports business steadily improving.

The tin can industry is reported as showing little change over last month. Orders continue in small quantities and specify immediate delivery, an indication that stocks are low. Price inquiries are more numerous.

Activity in the box-board industry is reported as being slower than at any time during the past sixteen years. Price competition is keen.

### ***Little Change in Building Situation***

The building industry has been making a little headway, but it is still hampered by wage disputes and labor difficulties. Each dispute has had its own deterrent effect upon building operations during the past months, and the result is that the summer building program is falling short of expectations.

The statement of permits issued in the various cities shows that Cleveland is fifth in the ranks. Present conditions in the building line in Cleveland

are fairly steady and there is a better demand for building materials and supplies.

Building in Cincinnati is reported as still lagging with lumber and other building materials in little demand. A revision of wages has been under consideration but a decision is not expected before early Fall. Elsewhere in this issue may be found a table showing building operations in the Fourth Federal Reserve District for the month of July.

## ***Crops Affected by Dry Weather; Prospects For Corn Continue Good; Oats Yield Poor***

New crops are an indication of new wealth and while recent crop returns are in some instances disappointing, a better feeling is evident in the farming districts. Farmers continue to practice economy and they are confining their purchases to necessities.

According to latest reports of the United States Department of Agriculture, the winter wheat crop of the whole United States now stands at 542,600,000 bushels which is 36,000,000 bushels less than last year and 30,000,000 bushels under a five year average. The United States yield per acre is 14 bushels as compared with 15.3 bushels last year.

The winter wheat crop in Ohio for this year is estimated at 27,400,000 bushels or a yield of about 12.4 bushels per acre. The grains as a rule are small, reducing the quality of the crop which is estimated at 80 per cent of normal. In Pennsylvania wheat threshing still continues and the yield is reported as well up to the average. The quality of the crop has been lowered somewhat by dry weather.

The corn crop, although affected by drought, is in good condition in most parts of the country and at

present is far enough advanced that a very good yield is assured. Recent rainfall has caused this important crop to improve rapidly throughout Ohio. In Kentucky the early crop has been severely injured, but the later planting is making a better showing. In Pennsylvania the crop is reported to be in fine condition in nearly all sections.

Oats threshing is still in progress. The yield is reported as unsatisfactory and generally below average. The stand in many fields has been too short to cut with the binder and has been cut for hay. Heads are poorly filled and the grain is light. Hay and pastures are reported in fair condition. Present prospects are that the Irish potato yield will be below normal.

Although Burley tobacco has been severely damaged by drought, there is still much of the crop that will make a fair yield if given favorable weather. Since the Blue Grass section is principally a farming community, the decreased acreage in the Burley crop has caused the demand for farm labor to slow up.

## ***Soft Coal Production Continues Decline; Retail Trade Improves; Slight Pick-Up in Coke Output***

While the total soft coal production throughout the United States continues to show a slight decline, there is a little improvement in Ohio and Kentucky fields. The depression in Western Pennsylvania fields continues.

The United States Geological Survey reports the total bituminous output during the first week of August at 7,296,000 net tons, a decrease of 56,000 tons from that of the week preceding. In the corresponding week of 1918 the output was 12,130,000 tons, and a year ago it was 10,432,000 tons.

Coal dealers in this District report an increasing volume of business. The beginning of this improvement was noticeable about May 1st. There are more inquiries coming in, but buyers are still very con-

servative and are purchasing mostly from hand to mouth. One large coal distributor reports more orders for coal to be delivered than at any time during the past six months. There has been no general movement to fill coal bins for the coming winter. Stocks of coal are reported light. Collections are said to be slowing up.

For the second week in succession, production of beehive coke has recorded an increase. The total output during the week ended August 6th was 55,000 tons, as against 45,000 tons the week before. That the depression is still great will be seen from the fact that the week's output was only 14 per cent as great as that of the corresponding week of 1920.

## ***Crop Shipments Aid Transportation; Maintenance Work Continues***

Railroads are already feeling some good effects from crop shipments, but this movement is only seasonal. The stabilizing effect of export trade and manufactured goods transportation is still lacking.

Grain shipments require good cars and this will necessitate more repair work, as much of the rolling stock is in poor condition. In addition to grain, the

month of July showed a little improvement in the volume of freight traffic in coal, fruits, vegetables and other seasonable commodities.

The cut in wages has brought out a considerable amount of repair work, but economy in operation and increased traffic have not built up sufficient reserves to insure buying on any large scale.

## *Textile Industry Working Back To Normal; Retailers Advertising Sales of Summer Goods*

With the new season for light weight merchandise for the spring of 1922 opening up very satisfactorily, and the wool textile business reported as running at near 100 per cent capacity all over the United States, indications are that the textile industry is approaching normal conditions. The volume of goods offered seems to be somewhat restricted because of the mills being well supplied with Fall orders. Prices are about on a parity with quotations for Fall 1921.

There is a good volume of orders for fall and winter trade in women's cloaks and suits and men's

clothing. Factories are said to be taking on more help. Many retailers apparently lack confidence in the present situation and are ordering in small quantities.

An evidence of economy in dress is seen in the demand for cotton goods. The cotton crop this year has been affected by dry weather and the boll weevil, but the carry-over from last year is very heavy.

The recent cool weather has brought out an early showing of Fall and Winter styles. Retailers have been making a final effort to dispose of all stocks of summer goods before cold weather sets in.

## *Special Report on The Rubber Industry*

The growth of the rubber industry has come about so naturally and so steadily that it has been accepted as a matter of course. Fifty years ago the uses of rubber were comparatively few—today about 30,000 different articles are made from this "Black Gold" which Columbus found but failed to recognize in his search for the yellow metal. Originally a curiosity, it has risen from a lowly place among the industries until few are superior to it in importance. It has been truthfully said that rubber has woven itself into the fabric of our lives, for regardless of where we may go, we find it working for us in some form or other.

The North American Indians were the first users of rubber. They found a curious sticky substance oozing from the bark of a certain kind of tree and perhaps by chance discovered that it was elastic. They gave it the name of "batos" (ball). Later on they learned that the smoke of the palm nut added snap and made it last longer, and soon they began to make it into moccasins, bags in which to carry water, clothing and ornaments, very crude to be sure, but useful. Columbus was the first white man to know anything about rubber and had he but known the latent value in the strange gummy balls, he would probably have returned to Spain with his ships laden with rubber in place of worthless clay.

For the first few hundred years the rubber industry made little progress due principally to the fact that no satisfactory method of manufacture was discovered and people then, as in modern times, were very skeptical. About the year 1770, Priestly, the man who discovered oxygen, while experimenting with a rubber ball sent him by a friend, discovered that this ball would erase pencil marks. This is probably the first practical use ever given rubber by civilized man. Priestly was so pleased with his new found plaything that he cut it into chunks and gave them to his friends, calling them "rubbers." This incident has the historical distinction of having given rubber its name.

In 1800 Brazil was the only country manufacturing rubber articles and her best market soon proved to be North America. Rubber shoes, water-bottles,

powder-flasks and tobacco-pouches found buyers in American ports, but rubber shoes were most in demand. Presently some Americans began to import raw rubber and manufacture goods of their own, and a Scotchman named McIntosh found a way of waterproofing by spreading between two strips of cloth a thin sheet of rubber dissolved in naphtha. His name still stands for raincoats today, but his waterproof clothing gave little satisfaction for it was too susceptible to changes in temperature. Rubber shoes showed the same failing for they became hard in winter, and soft and sticky in summer.

In 1836, two men, Hancock, an Englishman, and Chaffe, an American, discovered that rubber cut into strips and subjected to kneading under moderate heat lost its elasticity and could be moulded into any desired shape. This discovery marks the greatest advance in the development of the industry until 1839 when Charles Goodyear, a Connecticut hardware merchant, discovered the process of vulcanization.

Charles Goodyear is the man to whom the rubber industry owes its life. He first became interested in rubber when he went to purchase a life preserver which was an imperfect affair at best, and from that time it became a passion with him. He met one difficulty after another but continued his experiments even in the face of poverty, until one day while mixing some rubber and sulphur together he accidentally dropped a spoonful on the hot stove. Instead of melting, as he expected it would do, it flattened out like a silver dollar. It bent and stretched easily without cracking or breaking, it always snapped back into its original shape, and strangest of all it was no longer sticky. That night he nailed his new mixture on the outside of his door and in the morning he found that it was quite unaffected by the cold. His problem was solved and he named the process "vulcanizing" after the Roman god of fire. Here, the early history of the industry really ends, for the discovery of Goodyear marks a new epoch. He opened the way for the general use of rubber and started it on the onward march to present day proportions.

Akron, Ohio, is known as "The Rubber City." It has been well named, for here are located, with perhaps one exception, the largest rubber factories in the world. The Fourth District is the center of this industry. It has been estimated that around \$300,000,000 are invested in the rubber industry in the United States and of this amount, approximately \$200,000,000 are in this District. There is a healthy curiosity as to the reason why Akron is the "Rubber City" of the world. The reason might be said to be purely accidental. Dr. Benjamin Franklin Goodrich, shortly after the close of the Civil War, found himself with a small rubber factory on his hands and he did not know what to do with it as he was handicapped through lack of funds. This little plant was located at Hastings-on-the-Hudson. One day while talking to a friend from the little village of Akron, he was informed there was a small group of Akron men who had some money to invest in business. After meeting these men and talking the matter over they decided to build a small factory. That was how Akron got its start. Today, twelve plants similar to the one Dr. Goodrich built in 1869, could be placed in a single room in one of our great factories. Other business men, carefully watching, saw the successful growth the new business was making, and one after another they decided to link their fortunes with it. One after another, large factories grew up to meet the increasing demand for rubber goods and Akron changed from a little village to a prosperous city. At the present time rubber factories located in this District alone are capable of producing more automobile tires than would supply the needs of the entire world.

Rubber is derived from the milky juice of certain tropical trees, vines and shrubs, with the best grades coming from the Hevea and Castilloa trees which originally were centered in the Amazon river district of South America. With the ever increasing uses of rubber, naturally the question arises as to whether the supply of crude rubber will in time be exhausted. Almost any part of the world lying between the thirtieth parallels will produce rubber in commercially paying quantities, or a band 250 miles wide on either side of the equator where rubber producing trees will grow. A very small part of this area under intensive cultivation will produce enough rubber to supply present needs.

Crude rubber is obtained by tapping the trees. There are many kinds and grades of crude rubber, all of which can be divided into two chief classes, wild and cultivated. The wild rubber producing trees are found mostly in South America and Central Africa. Besides these places it is found in Central America and Mexico, also the Straits Settlements, Malayan Peninsula, Java, Sumatra and Borneo. For a long time, wild rubber trees were the only source of supply, but as the demand grew, two big obstacles came to the front.

Owing to the crude methods employed in collecting wild rubber, it is sent to the market with from ten to fifty per cent of moisture and foreign substance in its composition. This adds to the transportation cost and makes it difficult to handle at the

factory. Also, the amount of wild rubber gathered each year depends almost entirely on the number of laborers that can be secured. The work is difficult and dangerous and men do no scramble over each other to get the job. Since it was such a problem to get labor to the rubber trees, the tables were turned and the trees have been taken to the labor. For a long time Brazil had the upper hand in the crude rubber business, and realizing its importance, guarded her wealth closely. In 1876, however, H. A. Wickham, an Englishman, succeeded in smuggling a small cargo of seeds from the Hevea tree out of the country and these formed the base of the plantation industry.

These seeds were planted in the Kew gardens in London and the next year the seedlings from this planting were introduced into Ceylon and later the Federated Malay States, Straits Settlements, Southern India, Sumatra, Java and Borneo. From a small beginning, this industry has grown to be the greatest factor in the rubber trade. In the year 1900 the first trees of the Oriental plantations came into actual bearing condition and four tons of cultivated rubber were produced. In 1907 this production had grown to 1,000 tons, and in another decade reached 200,000 tons, or about eighty per cent of the world's production.

A pneumatic tire could as logically be called a cotton tire as a rubber tire, for cotton fabric forms a large part of its body, while the rubber binds it together and upholsters it. As the tire industry grew, the question of how and where to secure a good grade of cotton at a reasonable price became of paramount importance. The imported Sea Island and Old World Egyptian cotton is susceptible to the ravages of the Boll Weevil, and this in addition to other causes has made the quantity and quality of the crop, as well as the price, very uncertain at best. Until a few years ago, none of this type of long staple cotton, particularly suited to the manufacture of automobile tires, was grown in this country. After years of experimentation and careful selection of seeds and varieties, the adaptability of the Egyptian grade of cotton to the soil of the Salt River Valley of Arizona became firmly established. Today great tracts of desert land, where only mesquite bushes and cacti grew, have been irrigated and are producing the finest grades of cotton. While cotton is the popular fabric used in connection with the rubber industry, some of the finest grades of silk and wool are also used in the manufacture of different types of sheeting.

When the crude rubber arrives at the factory it is put through a washing process—especially the wild rubber—and all foreign substances are removed. From the wash-room the rubber goes to the dry-room as it must be thoroughly dried before it can be manufactured into articles of commercial value. Any moisture would turn to steam during the vulcanizing process and form blisters in the goods. In the general process of manufacture, the sheeted rubber is sent from the dry-room to the compound-room where the various ingredients are weighed out into the proper proportions along with the rubber to make

up a "batch" and placed in receptacles ready to be mixed. Following this, various processes are followed, depending on what the finished product is to be.

With the rapid development of the automobile, both commercially and for pleasure purposes, the manufacture of tires and inner tubes has come to be a tremendous factor in the rubber industry. Improvement followed improvement, resulting in the modern pneumatic tire which has literally paved the world with rubber. The tires first used were solid. They were crude and a very poor cushion for the bicycles upon which they were used, but they were the stepping stones to later developments.

Pneumatic tires may be classed under five heads: bicycle, motorcycle, airplane, automobile (fabric and cord) and pneumatic truck tires. The pneumatic cord tire is gradually replacing the fabric tire, as it gives a perfect air cushion and at the same time reduces puncture trouble to a minimum. Pneumatic tires are also replacing solid tires for use on trucks, giving tire companies a new field of endeavor. The remarkable increase in motor truck transportation and the wear on machinery caused by solid tires, have been largely responsible for this change. There are, however, times and places where the pneumatic tire for use on trucks has not proved entirely practical. In 1920 there were approximately 32,400,000 tires produced in the United States, and the value of the tire replacement output for the same year is estimated at \$636,750,000.

Truly rubber is a mainstay of transportation. Motor trucks have been the connecting link between railroads and undeveloped territory. Travel and

transportation over the highways has been made smoother and swifter, and as distances were shortened, it became possible to extend industrial effort and growth. Rubber has aided railway transportation by making travel better and safer.

At the present time, the tests of the trackless-trolley are being watched with interest, for if they are successful they will be used as branch systems to the main street car lines and these new style street cars will travel on rubber tires.

The mechanical uses of rubber are so numerous and so far reaching that it is practically impossible to name them all. The mechanical end of the rubber business is continually branching out in new directions and manufacturers are quick to take advantage of new suggestions and new inventions for its practical use. Prizes have been offered for ideas along this line and new ideas are showing up with surprising frequency. A few of the more common articles in daily use are: boots and shoes, belting, athletic goods, moulded goods or goods built entirely of rubber, i. e., without fabric reinforcement, hard rubber goods, clothing, hose, and rubber sundries.

It might almost seem that everything which can possibly be made from rubber is being manufactured at the present time, but after a review of the past it would appear that the industry is still in its youth if not in its infancy. Twenty-five years ago there were few who believed the clatter of hoofs and the rattle of wagons would pass, to be replaced by the noiseless rubber-tired, smooth running vehicles of today. In the light of past developments, even more startling changes may await us in the future.

### LIST OF RUBBER FACTORIES IN THE FOURTH FEDERAL RESERVE DISTRICT

The following is a list of the rubber factories in the Fourth Federal Reserve District in operation at the present time, with figures showing actual capacity production of automobile casings. Inner tube production figures are incomplete. Mechanical rubber goods are not included:

Company	Address	Actual Capacity Production Per Day		Company	Address	Actual Capacity Production Per Day	
		Casings	Tubes			Casings	Tubes
Apollo Tire & Rubber Co.	Cleveland, Ohio.	250	200	Liberty Airless Tire Corp.	Carey, Ohio.	500	
Ashland Tire & Rubber Co.	Ashland, Ohio.	1,000	1,500	Lehigh Rubber Co.	New Castle, Pa.	2,000	3,000
American Rubber & Tire Co.	Akron, Ohio.	1,000	1,000	McKone Tire & Rubber Co.	Millersburg, Ohio.	350	
Amazon Rubber Co.	Akron, Ohio.	300	1,000	Mohawk Rubber Co.	Akron, Ohio.	800	
Corona Cord Tire Co.	East Butler, Pa.	500	2,000	Miller Rubber Co.	Akron, Ohio.	4,850	7,000
Cord Tire Corporation.	Chester, W. Va.	500		Monarch Rubber Co.	Hartsville, Ohio.	500	
Canton Rubber Works.	Canton, O.	Mechanical goods only		Midland Tire & Rubber Co.	Coshocton, Ohio.	350	350
Columbus Tire & Rubber Co.	Columbus, Ohio.	500	800	Meyers Rubber Co.	Columbiana, Ohio.	150	
Continental Rubber Works.	Erie, Pa.	350	3,000	Mason Tire & Rubber Co.	Kent, Ohio.	2,500	2,500
Columbia Tire & Rubber Co.	Columbiana, Ohio.	600*		Marathon Tire & Rubber Co.	Cuyahoga Falls, O.	400	350
Denman-Myers Cord Tire Co.	Cleveland, Ohio.	500	500	Mansfield Tire & Rubber Co.	Mansfield, Ohio.	2,500*	
Dayton Rubber Mfg. Co.	Dayton, Ohio.	1,000	3,000	McLean Tire & Rubber Co.	East Liverpool, O.	750	800
Excel Rubber Co.	Wadsworth, Ohio.	300	200	McGraw Tire & Rubber Co.	Cleveland, Ohio.	3,500	5,000
Erie Tire & Rubber Co.	Sandusky, Ohio.	200		McCreary Tire & Rubber Co.	Indiana, Pa.	150	150
Firestone Tire & Rubber Co.	Akron, Ohio.	27,500	29,000	New Tread Tire Co.	Columbiana, Ohio.	750	500
Flexidly Tire & Rubber Co.	Massillon, Ohio.	500		Owen Tire & Rubber Co.	Cleveland, Ohio.	2,000	1,000
Falls Rubber Co.	Cuyahoga Falls, O.	400*		Pharis Tire & Rubber Co.	Newark, Ohio.	500	300
Giant Tire & Rubber Co.	Findlay, Ohio.	800	800	Pennsylvania Rubber Co.	Jeanette, Pa.	2,500	3,000
Goodyear Tire & Rubber Co.	Akron, Ohio.	35,800	42,000	Rubber Products Co.	Barberton, Ohio.	300	300
B. F. Goodrich Co.	Akron, Ohio.	30,000†	30,000	Republic Rubber Corporation	Youngstown, Ohio.	3,700	3,000
General Tire & Rubber Co.	Akron, Ohio.	1,500*		Swinehart Tire & Rubber Co.	Akron, Ohio.	300*	575
Henderson Tire & Rubber Co.	Columbus, Ohio.	1,500		Star Rubber Co.	Akron, Ohio.	600	1,000
India Tire & Rubber Co.	Akron, Ohio.	500	800	Standard Tire Co.	Willoughby, Ohio.	325	250
Ideal Tire & Rubber Co.	Cleveland, Ohio.	1,000	600	Victor Rubber Co.	Springfield, Ohio.	700	600
Kelly Springfield Tire & Rubber Co. (Akron Plant).	Akron, Ohio.	3,000					
Lancaster Tire & Rubber Co.	Columbus, Ohio.	400	400	Total		140,875	Incomplete

\* Estimated capacity production per day. † Large mechanical rubber goods production.



**Clearings**

	July 16th to August 15th		Increase or Decrease	Per cent Inc. or Dec.
	1921	1920		
Akron.....	\$28,953,000	\$41,733,000	—\$12,780,000	—30.6
Canton.....	13,862,474	22,848,270	—8,985,796	—39.8
Cincinnati.....	225,317,545	303,964,473	—78,646,928	—25.9
Cleveland.....	348,578,325	589,388,503	—240,810,178	—40.9
Columbus.....	53,747,000	65,349,200	—11,602,200	—17.7
Dayton.....	17,700,869	20,392,937	—2,692,068	—13.2
Erie.....	8,426,799	12,063,233	—3,636,434	—30.1
Greensburg.....	5,258,137	6,604,380	—1,346,243	—20.4
Lexington.....	4,810,719	6,578,192	—1,767,473	—26.9
Pittsburgh.....	504,932,054	763,880,806	—258,948,752	—33.9
Springfield.....	5,964,865	7,335,659	—1,370,794	—18.7
Toledo.....	50,644,441	64,823,000	—14,178,559	—21.9
Wheeling.....	16,075,292	23,996,694	—7,921,402	—33.0
Youngstown.....	14,098,839	19,210,404	—5,111,565	—26.6
<b>Total.....</b>	<b>\$1,298,370,359</b>	<b>\$1,948,168,751</b>	<b>—\$649,798,392</b>	<b>—33.4</b>

**Debits to Individual Accounts**

	Week Ending	Week Ending	Increase or Decrease	Per cent Inc. or Dec.
	Aug. 17, 1921 (272 Banks)	Aug. 18, 1920 (253 Banks)		
Akron.....	\$13,353,000	\$27,988,000	—\$14,635,000	—52.3
Cincinnati.....	57,615,000	61,543,000	—3,928,000	—6.4
Cleveland.....	114,165,000	180,501,000	—66,336,000	—36.8
Columbus.....	25,440,000	29,486,000	—4,046,000	—13.7
Dayton.....	12,857,000	11,734,000	1,123,000	9.6
Erie.....	5,354,000	8,517,000	—3,163,000	—37.1
Greensburg.....	3,349,000	6,538,000	—3,189,000	—48.8
Lexington.....	3,755,000	5,803,000	—2,048,000	—35.3
Oil City.....	1,958,000	3,589,000	—1,631,000	—45.4
Pittsburgh.....	136,527,000	170,715,000	—34,188,000	—20.0
Springfield.....	3,211,000	3,446,000	—235,000	—6.8
Toledo.....	23,194,000	31,249,000	—8,055,000	—25.8
Wheeling.....	6,575,000	9,440,000	—2,865,000	—30.3
Youngstown.....	9,457,000	13,805,000	—4,348,000	—31.5
<b>Total.....</b>	<b>\$416,810,000</b>	<b>\$564,354,000</b>	<b>—\$147,544,000</b>	<b>—26.1</b>

**Comparative Statement of Selected Member Banks in Fourth District**

(In Thousands of Dollars)

	Aug. 10, 1921	July 13, 1921	Inc.	Dec.
	87 Banks	88 Banks		
Loans and Discounts secured by U. S. Government obligations.....	48,769	53,868	.....	5,099
Loans and Discounts secured by other stocks and bonds.....	333,641	334,510	.....	869
Loans and Discounts, all other.....	592,925	589,426	3,499	.....
U. S. Bonds.....	103,724	101,631	2,093	.....
U. S. Victory Notes.....	16,490	15,675	815	.....
U. S. Treasury Notes.....	1,641	3,043	.....	1,402
U. S. Certificates of Indebtedness.....	19,694	10,202	9,492	.....
Other Bonds, Stocks and Securities.....	278,163	281,348	.....	3,185
<b>Total Loans, Discounts and Investments.....</b>	<b>1,395,047</b>	<b>1,389,703</b>	<b>5,344</b>	<b>.....</b>
Reserve with Federal Reserve Bank.....	90,711	92,657	.....	1,946
Cash in Vault.....	28,246	31,223	.....	2,977
Net Demand Deposits.....	791,276	798,043	.....	6,767
Time Deposits.....	429,954	426,836	3,118	.....
Government Deposits.....	31,526	23,222	8,304	.....
<b>Total Resources at date of this report.....</b>	<b>1,801,274</b>	<b>1,830,016</b>	<b>.....</b>	<b>28,742</b>

**Wholesale Trade**  
**Percentage Increase (or Decrease) in Sales During 1920 and 1921**  
**Over the Corresponding Month in Previous Year**

	Dry Goods	Groceries	Hardware	Drugs
July, 1920.....	16.0	20.6	24.7	29.6
August.....	10.0	1.0	21.5	11.1
September.....	.....	23.8	12.4	31.1
October.....	-27.5	-10.8	2.0	.....
November.....	-4.2	-3.8	16.7	45.8
December.....	-20.0	-18.8	-16.9	-17.0
January.....	-51.6	-36.7	-20.6	-19.0
February.....	-22.3	-27.1	-19.0	-31.2
March.....	-14.9	-33.1	-16.3	-29.2
April.....	-4.2	-37.7	-21.9	-23.4
May.....	-13.6	-35.1	-22.0	-23.4
June.....	-24.4	-49.8	-32.9	-22.2
July, 1921.....	-35.5	-43.6	-38.5	-15.0

**Department Store Sales**

	Pittsburgh	Cleveland	Other Cities	District
Percentage increase of net sales during July, 1921, over net sales during same month last year.....	-16.3	-29.2	-17.0	-21.4
Percentage increase of stocks at close of July, 1921, over stocks at close of same month last year.....	-14.9	-27.9	-9.1	-19.6
Percentage increase of stocks at close of July, 1921, over stocks at close of June, 1921.....	-5.4	-6.0	-10.4	-6.1
Percentage of stocks at close of July to net sales for the same month.....	362.7	476.3	483.1	416.9
Percentage of outstanding orders (cost) at close of July, 1921, to total purchases (cost) during the calendar year, 1920.....	5.8	8.6	9.4	7.2

**Movement of Livestock at Principal Centers in Fourth Federal Reserve District For Month of July, 1921**

	Cattle		Hogs		Sheep		Calves		Cars Unloaded	
	1921	1920	1921	1920	1921	1920	1921	1920	1921	1920
Cincinnati.....	23,837	22,925	98,221	86,230	99,170	101,137	17,160	17,454	2,458	2,323
Cleveland.....	9,085	10,169	62,469	50,027	21,095	14,967	11,063	12,169	1,336	1,177
Columbus.....	16	84	5,266	3,769	158	459	123	74	16	27
Dayton.....	1,575	1,745	9,082	8,667	817	2,104	808	768	.....	.....
Fostoria.....	75	367	6,337	4,476	553	354	588	482	12	11
Pittsburgh.....	35,312	42,830	130,709	174,154	154,485	111,466	27,411	27,738	3,827	4,861
Springfield.....	100	.....	5,100	.....	600	.....	200	.....	.....	.....
Toledo.....	691	960	6,090	6,474	754	555	888	864	109	114
Purchases for Local Slaughter										
Cincinnati.....	16,170	14,931	61,257	45,835	14,387	4,550	8,630	6,821	.....	.....
Cleveland.....	8,252	8,645	46,188	32,220	18,408	12,495	10,548	11,843	.....	.....
Columbus.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dayton.....	.....	1,500	.....	5,306	.....	1,659	.....	732	.....	.....
Fostoria.....	40	20	672	700	10	334	175	10	.....	.....
Pittsburgh.....	6,562	6,138	33,567	26,118	13,667	11,646	8,316	8,692	.....	.....
Springfield.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Toledo.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

**Building Operations For Month of July**

	Permits Issued				Valuations				Inc. or Dec. of Total Valuation	Per cent Inc. or Dec.
	New Construction 1921	New Construction 1920	Alterations 1921	Alterations 1920	New Construction 1921	New Construction 1920	Alterations 1921	Alterations 1920		
Akron . . . . .	96	66	49	224	73,527	1,670,530	22,415	73,510	-1,648,098	-94.5
Canton . . . . .	104	70	58	50	154,208	157,930	33,725	37,615	-7,612	-3.9
Cincinnati . . . . .	264	179	230	617	975,135	880,375	293,150	405,382	-17,472	-1.4
Cleveland* . . . . .	378	214	797	864	2,555,798	7,189,500	689,321	553,375	-4,497,756	-58.1
Columbus . . . . .	267	128	140	101	746,225	333,300	154,465	287,115	280,275	45.2
Dayton . . . . .	152	145	61	72	560,275	622,674	24,375	58,640	-96,664	-14.2
Erie . . . . .	95	73	37	36	208,730	125,230	61,110	92,402	52,208	24.0
Lexington . . . . .	10	10	41	56	50,000	200,000	13,355	55,278	-191,923	-75.2
Pittsburgh . . . . .	318	240	111	181	1,205,656	824,207	263,308	274,798	369,959	33.7
Springfield . . . . .	69	19	27	17	170,205	13,945	16,275	45,125	127,410	215.7
Toledo . . . . .	187	159	171	119	734,219	481,491	144,102	111,790	285,040	48.0
Wheeling . . . . .	47	60	19	18	94,170	309,800	3,515	6,915	-219,030	-69.2
Youngstown . . . . .	95	93	17	28	276,380	278,800	6,700	18,600	-14,320	-4.8
<b>Total . . . . .</b>	<b>2,082</b>	<b>1,456</b>	<b>1,758</b>	<b>2,383</b>	<b>7,804,528</b>	<b>13,087,782</b>	<b>1,725,816</b>	<b>2,020,545</b>	<b>-5,577,983</b>	<b>-36.9</b>

\*1921 figures include Lakewood and East Cleveland.

**Statement of Bituminous Coal Loaded Into Vessels (As Dumped by Docks)  
In Net Tons for Season to End of July, 1921, as Compared with the Same Period  
for the Seasons of 1920-1919.**

Ports	Railroads	1921			1920			1919		
		Cargo	Fuel	Total	Cargo	Fuel	Total	Cargo	Fuel	Total
Toledo	Hocking Valley . . . . .	2,349,553	61,521	2,411,074	982,138	17,619	999,757	2,405,550	71,532	2,477,082
	Toledo & Ohio Central.	646,417	18,206	664,623	475,130	25,843	500,973	730,336	21,761	752,097
	Baltimore & Ohio . . . . .	1,365,697	38,589	1,404,286	298,523	11,733	310,256	1,347,207	30,452	1,377,659
Sandusky	Pennsylvania . . . . .	800,265	22,079	822,344	400,166	4,802	404,968	731,157	20,742	751,899
Huron	Wheeling & Lake Erie.	1,020,112	26,182	1,046,294	806,672	50,894	857,566	942,322	30,797	973,119
Lorain	Baltimore & Ohio . . . . .	1,594,796	58,398	1,653,194	1,125,146	99,181	1,224,327	1,711,704	88,591	1,800,295
Cleveland	Pennsylvania . . . . .	1,312,504	44,878	1,357,382	170,644	57,028	227,672	1,276,761	134,220	1,410,981
	Erie . . . . .	276,161	8,448	284,609	19,903	1,955	21,858	97,188	3,114	100,302
Ashtabula	New York Central . . . . .	817,040	33,595	850,635	392,526	108,069	500,595	1,038,634	78,680	1,117,314
	Pennsylvania . . . . .	1,529,437	48,159	1,577,596	405,559	40,375	445,934	1,044,607	46,356	1,090,963
Conneaut	Bessemer & Lake Erie.	592,120	7,443	599,563	1,104,633	17,936	1,122,569	712,094	3,492	715,586
Erie	Pennsylvania—West . . . . .	600,592	20,136	620,728	40,219	2,579	42,798	429,929	20,772	450,701
	Pennsylvania—East . . . . .	110,968	15,523	126,491	32,479	37,157	69,636	133,104	7,275	140,379
<b>Total . . . . .</b>		<b>13,015,662</b>	<b>403,157</b>	<b>13,418,819</b>	<b>6,253,738</b>	<b>475,171</b>	<b>6,728,909</b>	<b>12,600,593</b>	<b>557,784</b>	<b>13,158,377</b>

## PICKUPS ON BUSINESS TOPICS

**C**OMMERCIAL Attache W. L. Schurz, of Rio de Janeiro, recommends that American manufacturers should discontinue sending heavy catalogues to South America by parcel post. Such publications should be sent by express, or by any other means available. A large number of packages sent by parcel post are piled up in the custom house at Rio de Janeiro, and it requires so much time and expense to get a package out of the parcel post section that many persons prefer to leave their packages unclaimed.

A copy of the conditions prescribed by the Minister of Agriculture of the Imperial Ottoman Empire for the tractor tests to be held near Constantinople on September 5, 1921, has just been sent to the Bureau of Foreign and Domestic Commerce by Assistant Trade Commissioner Julian E. Gillespie. A translation of this may be examined in the Bureau at Washington, D. C., or at its district and co-operative offices by referring to file No. NE-60.

The American consulate at Vigo, Spain, would be glad to receive catalogues, plans, etc., from manufacturers of knock-down wooden houses, garages and portable metal garages. There is at present a shortage of buildings at Vigo, as in all parts of Spain, and the consulate believes it may be able to stimulate interest in this class of construction, as present local methods of construction are both slow and expensive.

Agriculture is the main industry of Syria and is carried on in all parts of the country. The methods employed are primitive. Tractor demonstrations have been held under French auspices. American agricultural machinery is liked and has a chance of obtaining a market, provided arrangements are made for its repair and the supply of repair parts. Demonstrations are also necessary.

The number of locomotives purchased in the United States by the Mexican Government has been reported from official sources as 130. Of these, 85 have been obtained on a rental basis with a view of ultimate purchase, and the other 45 have been purchased outright and a cash payment of from 15 to 20 per cent already made. Further purchases are expected.

Commercial Attache Charles H. Cunningham, of Madrid, has transmitted blue prints for mounted axles desired by a combination of Spanish manufacturers. This material is on file in the district office of the Bureau of Foreign and Domestic Commerce at 734 Customhouse, New York, and may be examined there by interested firms.

There is available in the Bureau of Foreign and Domestic Commerce a set of regulations governing the traffic in moneys and currencies and commercial paper of Jugoslavia. A copy of the English translation of this decree may be seen by referring to File No. NE-62.

The importation of automobiles, cigarettes, cigars and cheese into Norway is now permitted, the prohibition against their import having been removed July 30, 1921.

**E**VERY rotten, frozen or undergrade potato that is loaded and every potato spoiled while in transit or in storage reduces the grower's profits and means a waste of time and labor. It also means a waste of time and labor for every person handling it and a waste of car space. Consequently it amounts to an appreciable loss to the community as a whole. Through its inspection service the Bureau of Markets and Crop Estimates is trying to reduce this waste.

Lists of dealers and importers of various commodities have been prepared and are now ready for distribution. The lists of important hardware houses in Argentina and Uruguay submitted by Commercial Attache Feely, containing the names of the buyers of the different houses, should be of considerable value to salesmen visiting these countries. These lists can be obtained from the Bureau of Foreign and Domestic Commerce.

A preliminary announcement from the Egyptian Ministry of Agriculture shows that American tractors, almost without exception, proved to be the best in the motor-tractor trials in Egypt some time ago.

Due to the general commercial depression, the present is not a favorable time to sell tractors in Egypt, but upon the resumption of more normal conditions American tractors will easily dominate the market.

The third Barcelona Sample Fair will be held in Barcelona from March 15 to 25, 1922, and will be of an international character, according to an official announcement of the management. Representatives of all foreign Governments have been requested to notify manufacturers and industrial organizations in their respective countries with regard to this fair.

There is an opportunity for the sale of twenty miles of 14-inch cast iron pipe and 40 miles of 20-inch cast-iron pipe in Guayaquil, Ecuador, according to a cablegram from Consul General at Guayaquil.

Further particulars can be obtained from the Bureau of Foreign and Domestic Commerce or its district and co-operative offices by referring to File L. A. 31866.

Speaking of trade conditions in Austria, Trade Commissioner Upson says: "There is a good market for American shoes and specialties, food products, cotton, copper, tobacco, oils and fats. What American exporters need to do is to send their goods over there where there is an assured market and sell them for cash."

Motor vehicles transporting passengers for hire between municipalities in Ohio, will be subject to regulation as public utilities beginning August 15, on which date the Graham bill passed by the recent legislature became effective.

American manufacturers of cement-making machinery should be watching developments in the Union of South Africa and Portugese East Africa, writes Trade Commissioner P. J. Stevenson, Johannesburg.